(ii) *Indications for use.* For the relief of pain associated with colic and postpartum pain in adult horses and yearlings.

(iii) *Limitations.* For intravenous use in horses only. Dose may be repeated within 3 to 4 hours. Treatment should not exceed 48 hours. Not for use in horses intended for food. Federal law restricts this drug to use by or on the order of a licensed veterinarian.

(3) *Cats*—(i) *Amount.* 0.2 milligram of butorphanol base activity per pound of body weight (0.4 milligram/kilogram), using 2 milligrams per milliliter solution.

(ii) *Indications for use.* For the relief of pain in cats caused by major or minor trauma, or pain associated with surgical procedures.

(iii) *Limitations.* For subcutaneous injection in cats only. Dose may be repeated up to 4 times per day. Do not treat for more than 2 days. Safety for use in pregnant female cats, breeding male cats or kittens less than 4 months of age has not been determined. Federal law restricts this drug to use by or on the order of a licensed veterinarian.

[45 FR 29276, May 2, 1980, as amended at 50 FR 24508, June 11, 1985; 53 FR 27851, July 25, 1988; 59 FR 41665, Aug. 15, 1994; 63 FR 66432, Dec. 2, 1998]

§ 522.311 Carfentanil citrate injection.

(a) *Specifications.* Each milliliter of sterile aqueous solution contains 3 milligrams of carfentanil citrate.

(b) *Sponsor.* See No. 053923 in § 510.600(c) of this chapter.

(c) *Conditions of use*—(1) *Amount.* 5 to 20 micrograms per kilogram (.005 to .020 milligram per kilogram) of body weight.

(2) *Indications for use.* For immobilizing free ranging and confined members of the family Cervidae (deer, elk, and moose).

(3) *Limitations.* Inject into large muscle of neck, shoulder, back, or hindquarter. Avoid intrathoracic, intra-abdominal, or subcutaneous injection. To reverse effect, use 7 milligrams of diprenorphine for each milligram of carefentanil citrate, given intravenously or one-half intravenously and one-half intramuscularly or subcutaneously. Do not use in domestic animals intended for food. Do not use 30 days before or during hunting season. Do not use in animals that display clinical signs of severe cardiovascular or respiratory disease. Available data are inadequate to recommend use in pregnant animals. Avoid use during breeding season. Federal law restricts this drug to use by or on the order of a licensed veterinarian. The licensed veterinarian shall be a veterinarian engaged in zoo and exotic animal practice, wildlife management programs, or research.

[53 FR 40057, Oct. 13, 1988]

§ 522.313 Ceftiofur sodium powder for injection.

(a) *Specifications.* Ceftiofur sodium sterile powder for injection is reconstituted to form an aqueous solution containing the equivalent of 50 milligrams ceftiofur per milliliter.

(b) *Sponsor.* See 000009 in § 510.600 of this chapter.

(c) *Related tolerances.* See § 556.113 of this chapter.

(d) *Conditions of use*—(1) *Cattle*—(i) *Amount.* 0.5 to 1.0 milligram of ceftiofur per pound of body weight intramuscularly or subcutaneously.

(ii) *Indications for use.* Treatment of bovine respiratory disease (shipping fever, pneumonia) associated with *Pasteurella hemolytica, P. multocida,* and *Haemophilus somnus* in beef and dairy cattle. Also, for the treatment of acute bovine interdigitial necrobacillosis (foot rot, pododermatitis) associated with *Fusobacterium necrophorum* and *Bacteroides melaninogenicus.*

(iii) *Limitations.* Treatment should be repeated once every 24 hours for 3 days. Treat for an additional 2 days if animals do not show a satisfactory response. Do not use in animals previously found to be hypersensitive to the drug. Use of doses in excess of those indicated may result in illegal residues in tissues. Federal law restricts this drug to use by or on the order of a licensed veterinarian.

(2) *Swine*—(i) *Amount.* 3 to 5 milligrams per kilogram (1.36 to 2.27 milligrams per pound) of body weight.

(ii) *Indications for use.* For treatment and control of swine bacterial respiratory disease (swine bacterial pneumonia) associated with *Actinobacillus (Haemophilus) pleuropneumoniae,*

Pasteurella multocida, *Salmonella choleraesuis*, and *Streptococcus suis Type 2*.

(iii) *Limitations*. For intramuscular use only. Treatment should be repeated at 24 hour intervals for a total of 3 consecutive days. Do not use in animals previously found to be hypersensitive to the drug. Use of dosages in excess of those indicated or route of administration other than that recommended may result in illegal residues in tissues. Safety of ceftiofur has not been determined in breeding swine. Federal law restricts this drug to use by or on the order of a licensed veterinarian.

(3) *Day-old chickens*—(i) *Amount*. 0.08 to 0.20 milligram per chick.

(ii) *Indications for use*. For control of early mortality associated with *Escherichia coli* organisms susceptible to ceftiofur.

(iii) *Limitations*. For subcutaneous use in the neck of day-old chicks only. As a single dose only. Federal law restricts this drug to use by or on the order of a licensed veterinarian.

(4) *Day-old turkey poults*—(i) *Amount*. 0.17 to 0.5 milligram per poult.

(ii) *Indications for use*. For control of early mortality associated with *E. coli* organisms susceptible to ceftiofur.

(iii) *Limitations*. For subcutaneous use in the neck of day-old poults only. As a single dose only. Federal law restricts this drug to use by or on the order of a licensed veterinarian.

(5) *Horses*—(i) *Amount*. 2.2 to 4.4 milligrams per kilogram (1.0 to 2.0 milligrams per pound) of body weight.

(ii) *Indications for use*. For treatment of respiratory infections in horses associated with *Streptococcus zooepidemicus*.

(iii) *Limitations*. For intramuscular use only. Treatment should be repeated every 24 hours, continued for 48 hours after clinical signs have disappeared, and should not exceed 10 days. A maximum of 10 milliliters should be administered per injection site. Not for use in horses intended for food. Do not use in animals previously found to be hypersensitive to the drug. Federal law restricts this drug to use by or on the order of a licensed veterinarian.

(6) *Dogs*—(i) *Amount*. 1.0 milligrams per pound (2.2 milligrams per kilogram) of body weight.

(ii) *Indications for use*. Treatment of canine urinary tract infections associated with *Escherichia coli* and *Proteus mirabilis*.

(iii) *Limitations*. For subcutaneous use only. Treatment should be repeated at 24-hour intervals, continued for 48 hours after clinical signs have disappeared, for 5 to 14 days. Do not use in animals found to be hypersensitive to the drug. Federal law restricts this drug to use by or on the order of a licensed veterinarian.

(7) *Sheep*—(i) *Amount*. 0.5 to 1.0 milligram per pound (1.1 to 2.2 milligrams per kilogram) of body weight.

(ii) *Indications for use*. For treatment of sheep respiratory disease (pneumonia) associated with *Pasteurella haemolytica* and/or *P. multocida*.

(iii) *Limitations*. For intramuscular use only. Treatment should be repeated at 24 hour intervals for a total of 3 consecutive days. Additional treatments may be given on days 4 and 5 for animals which do not show satisfactory response. Use of dosages in excess of those indicated or by unapproved routes of administration may result in illegal residues in tissues. Federal law restricts this drug to use by or on the order of a licensed veterinarian.

(8) *Goats*—(i) *Amount*. 0.5 to 1.0 milligram per pound of body weight by intramuscular injection at 24-hour intervals for a total of 3 consecutive days. Additional treatments may be given on days 4 and 5 for animals that do not show satisfactory response.

(ii) *Indications for use*. For treatment of caprine respiratory disease (goat pneumonia) associated with *Pasteurella haemolytica* and *P. multocida*.

(iii) *Limitations*. Federal law restricts this drug to use by or on the order of a licensed veterinarian.

[53 5369, Feb. 24, 1988, as amended at 55 FR 13768, Apr. 12, 1990; 56 FR 12119, Mar. 22, 1991; 57 FR 41862, Sept. 14, 1992; 59 FR 41666, Aug. 15, 1994; 59 FR 54518, Nov. 1, 1994; 60 FR 51719, Oct. 3, 1995; 61 FR 35130, July 5, 1996; 61 FR 66583, Dec. 18, 1996; 66 FR 21283, Apr. 30, 2001; 66 FR 32540, June 15, 2001]

§ 522.314 Ceftiofur hydrochloride sterile suspension.

(a) *Specifications*. Each milliliter contains ceftiofur hydrochloride equivalent to 50 milligrams of ceftiofur.